

Limitations of the Technology

- Megapulse F.A.R. cannot return rusted components back to metal. The system retards corrosion but cannot reverse it.
- It is important to keep metal painted as the paint is required to keep and spread the electrostatic charge on the metal.
- The electrostatic field cannot hold a charge on a sharp thin edge, as in the case of rust holes, if it is covered with paint it will be protected.
- Rust perforations and or bubbling must be cleaned up and a coat of paint applied before the system can be effective in that area.
- The system is an effective rust preventative; however bare metal is still likely to develop a layer of surface rust.
- Automotive paint can be porous and allow moisture to react with the metal below, causing rust bubbles.
- When it rains, surface rust can leech down the paint as a rusty streak, it is important to keep paint sealed to prevent this from happening.
- If Megapulse F.A.R. is fitted when the vehicle is new, it will help prevent rust streaks, as the system also retards paint oxidation.
- When installing F.A.R. on a vehicle with existing rust, the large system with 8 couplers must be used.
- F.A.R. cannot make repairs or restoration to metal and cannot prevent rust forming on bare metal, but it will prevent it advancing to perforation.

Frequently Asked Questions

Q. What is the difference between Megapulse F.A.R. and conventional rust proofing methods?

A. Sprays and coatings are only as good as where they reach. Unless your vehicle is totally stripped, there is no way the entire vehicle can be protected. Megapulse F.A.R. reaches 100% of all surfaces.

Q. Is Megapulse F.A.R. a more expensive option, over conventional rust proofing methods?

A. Unlike conventional coatings that need to be reapplied on an annual basis, Megapulse F.A.R. is a one-time cost.

Q. Does one size fit all?

A. F.A.R. comes in 2 sizes, the 4 coupler system for vehicles up to 4WD, and the 8 coupler system for vehicles up to a 13m bus or vehicles exposed to severe conditions on a regular basis.

Q. Does F.A.R. interfere with on board computers and radios etc. or personal health?

A. No – Megapulse F.A.R. is safe on vehicle electronics and passengers.

Q. Will it flatten my battery?

A. Megapulse F.A.R. uses the same power as a dashboard clock, approx. 50 milliamp, and shuts down when the battery voltage falls below 11v.

Q. How long will it last?

A. The electronics have a design life of 20 years and are covered by a full replacement 7 year warranty.

Troubleshooting

- If No Light: Check Battery voltage.
- F.A.R. switches off when battery voltage falls below 11v. It reactivates when the battery is recharged.
- Check that the positive and negative terminals are tight.
- Check that cables are not installed in reverse, if they are, simply change them to the correct position.
- F.A.R. will not be damaged if connected in reverse as it is reverse polarity protected.
- If there is a short circuit in the wiring or the couplers the unit will glow red.
- When the fault is rectified, the unit will glow green.
- If fault is not found, cut coupler wire starting at the last coupler about 150 mm from the coupler and move to the next coupler working your way back to the unit. When the green LED glows it indicates that the coupler you have just disconnected is the problem one.
- The most common cause of unit failure upon installation is a screw through the output wire when re-fixing panels.

PRODUCT SPECIFICATIONS

Input Voltage	12 Volt DC
Operating Voltage	11 Volt to 15 Volt
Operating Current	50 milliamps
Output Voltage	600 DCV

Megapulse F.A.R. System Includes

- Megapulse F.A.R. Unit
- Capacitive Couplers
- Connecting cable
- Connectors
- Cleaning swabs
- Installation Instructions

MEGAPULSE[®]

FIRST AID for RUST



Installation and User Guide

(Please keep this User Guide in the glove compartment of your car)

The Benefits of Megapulse F.A.R.

- Environmentally safe
- Retards paint oxidation
- Retards existing corrosion
- 7 year full replacement product warranty
- Completely harmless to you and your family
- No chemicals, No messy sprays and No smells
- Prevents electrolysis between dissimilar metals
- Easy to install, D.I.Y. or by a local auto electrician
- Protects bolt on accessories such as bull bars etc...
- Prevents rust damage on stone chips and scratches
- Protects areas that conventional rust proofing can't reach
- Reduce maintenance costs and prolongs your vehicle's life

Internet: www.megapulse.net – Email: info@megapulse.net

Installation Instructions

F.A.R. is equipped with a green LED and a red LED. The green LED indicates the unit is functioning correctly while the red LED indicates a problem is present (most likely a short circuit in the wiring or couplers). If this occurs please refer to the troubleshooting guide at the back of this user guide.

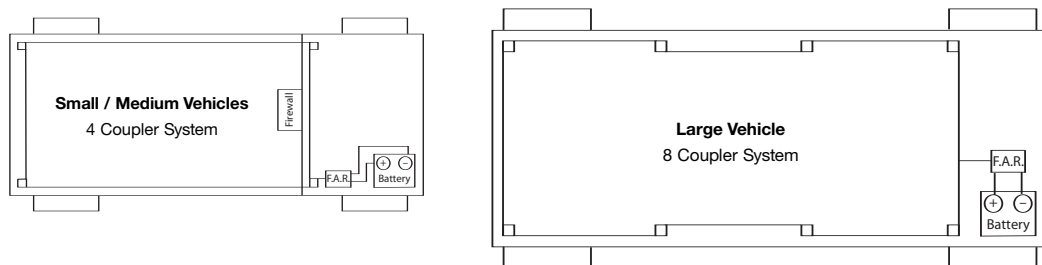
The couplers actually distribute the charge so they should be evenly spread across the vehicle.

1. Remove the F.A.R. Unit from the box. **Note:** Connect the main unit to the battery last.
2. Select sites for the F.A.R. unit and couplers. Fit the main unit near the battery.
3. The male Spade Connector on the main unit delivers the electrostatic charge to the Couplers via the black output wire (connect to it with the supplied female spade connector). The red and black input wires are connected to the battery terminals.
4. Place the first coupler close to the F.A.R. unit, then connect each coupler in-line with next so as to make a complete loop back to the main unit.
5. Clean the areas (75mm square) thoroughly with the swab enclosed or Methylated spirits.
6. The Coupler site must be painted. Most vehicles have sufficient paint in the engine bay, on the floor and in the trunk.
7. Peel off the adhesive cover and firmly press the couplers in place. Coupler site must be flat with no seams, cracks, welds, scratches or ridges.
8. Couplers should be placed inside the vehicle, under the hood, on the floor at the front and at the rear and in the trunk.
9. On utility vehicles, you may have to place couplers on the chassis at rear (follow procedure as in #4)
10. If running wires under the vehicle, protect them by running them inside cable housing.
11. Once all couplers are in place and wires run, connect them using the supplied connectors and heat shrink.
11. Use heat shrink provided on all joins.
12. Run the last wire on the last coupler back to the main unit forming a complete loop.
13. Finally, seal around the edges of all couplers with clear silicone.

Connecting the main unit

Important:

- Do not remove existing wires or cables from battery.
- Working on one terminal at a time, undo nut while holding all wires in place slip F.A.R. ring terminal onto battery bolt and re-tighten nut.
- Repeat with other terminal. The unit should light up.
- Below are diagrams for both systems.



- FAR is supplied with 2 input wires and a male spade connector for the output electrostatic charge.
- The red and black input wires are connected to the battery terminals providing the input voltage.
- The spade connector is used to connect to the black output wire which provides power to the couplers.

The Rust Process

When metal is exposed by a scratch to water and air, it gives up electrons which changes the metal composition and allows Rust to form. Megapulse F.A.R. provides an abundance of free Electrons in the form of an electrostatic field around all the metal in your vehicle. These free Electrons are used up instead of depleting the electrons from the metal, so the metal in your vehicle is left unchanged.

Megapulse F.A.R. uses a process called Capacitive Coupling to apply an electrostatic field to every metallic component of a vehicle which is earthed to the battery. This electrostatic field keeps the metal structure electron-rich. The unit consumes about as much current as an LCD clock.

What F.A.R. does is interfere with the oxidation cycle, by artificially pumping electrons into the vehicle so the supply of electrons exceeds the demand. F.A.R. creates a capacitor, with the Conductive pads affixed to the paint which act as the positive plate in the capacitor, the paint becomes the dielectric with holds the charge static, and the body of the vehicle becomes the negative plate in the capacitor.

Therefore every seam, bolt, screw and panel earthed to the vehicle is protected from corrosion by this surplus of electrons. Parts which are impossible to coat by conventional methods, like the inside of exhaust system, roof gutters, multi-fold panels, are all covered by this electron field. The system is ideal also for older already rusted vehicles because Megapulse F.A.R. will retard corrosion already begun.

A common problem with vehicles is that different metals are used for different functions. When two different metals come in contact with each other, the less reactive metal will steal electrons from the more reactive metal and so wherever two dissimilar metals meet corrosion occurs. With Megapulse F.A.R. this corrosion due to the electrolysis effect is dramatically reduced.

F.A.R. operates continually from the vehicle battery, the 12 volt DC charge is then stepped up to a high voltage and transferred to the Capacitive Couplers, these become charged with high concentrations of electrons. The layer of electrons prevents or retards corrosion by lowering the metal voltage potential which means the metal becomes less reactive and therefore less likely to corrode. If more electrons are supplied to a vehicle than the elements can take out, corrosion can be significantly retarded and this is the technology F.A.R. uses to protect your vehicle against Rust.

<p>WATER PAINT</p> <p>METAL ELECTRONS FROM METAL ARE STRIPPED AWAY</p>	<p>WATER PAINT</p> <p>METAL ABUNDANT FREE ELECTRONS PRODUCED BY MEGAPULSE F.A.R.</p>	<p>WATER PAINT</p> <p>METAL ABUNDANT FREE ELECTRONS PRODUCED BY MEGAPULSE F.A.R.</p>
<p>A scratch in the paint exposes the metal to corrosion from air and water, this removes electrons from the metal and allows oxygen atoms to bond with the surface of the metal.</p> <p>The surface of the exposed metal then changes into rust as electrons are stripped away.</p>	<p>Megapulse F.A.R. pumps an abundant supply of free electrons into the body of the vehicle. These free electrons move throughout the entire metal body, forming a protective shield around the entire vehicle.</p>	<p>The rust process uses up the abundant free electrons provided by the Megapulse F.A.R. system instead of removing electrons from your vehicles metal, leaving the metal unchanged, thus protecting your valuable asset against rust.</p>

Warranty

Megapulse F.A.R. is subjected to quality control tests before leaving the factory. Be sure that the unit is connected to a 12-volt supply only. Warranty is void if the unit is connected to voltage above 12v and or the product is used outside of product specifications. Megapulse F.A.R. is covered by a full replacement 7 year warranty.